No. 96-1133

IN THE

Supreme Court of the United States

OCTOBER TERM, 1997

UNITED STATES OF AMERICA,

Petitioner,

vs.

EDWARD G. SCHEFFER,

Respondent.

On Writ of Certiorari to the United States Court of Appeals for the Armed Forces

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BRIEF *AMICUS CURIAE* OF THE CRIMINAL JUSTICE LEGAL FOUNDATION IN SUPPORT OF PETITIONER

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QUESTION PRESENTED

Does Military Rule of Evidence 707, which provides that evidence of a polygraph examination is not admissible in court-martial proceedings, create an unconstitutional abridgement of military defendants' right to present a defense?

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INTEREST OF *AMICUS CURIAE*

The Criminal Justice Legal Foundation (CJLF)[1] is a nonprofit California corporation organized to participate in litigation relating to the criminal justice system as it affects the public interest. CJLF seeks to bring the constitutional protections of the accused into balance with the rights of victims and of society to rapid, efficient, and reliable determination of guilt and swift execution of punishment.

The present case presents a dangerous expansion of the right to present evidence. It will undercut the ability of rulemaking bodies to fashion *per se* exclusions of certain types of inherently unreliable or prejudicial evidence. It will also expand the use of polygraph evidence, a class of evidence that is inherently danger-

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1. Both parties have consented to the filing of this brief. Rule 37.6 Statement: This brief was written entirely by counsel for *amicus*, as listed on the cover. No outside contributions were made to the preparation or submission of this brief.

ous to justice. This is contrary to the interests CJLF was formed to protect.

SUMMARY OF FACTS AND CASE

Defendant, an airman in the Air Force, was working as an informant for the Air Force Office of Special Investigations (OSI), where he assisted the OSI in identifying drug dealers. On April 7, 1992, at the request of OSI, defendant submitted a urine sample, a normal procedure for controlled informants. *United States* v. *Scheffer*, 44 M. J. 442, 443 (1996). On April 10, defendant was asked to submit to a polygraph examination. He was asked whether he used drugs while in the Air Force, whether he had lied in any of the drug information given to OSI, and whether he told anyone other than his parents that he was helping OSI. Defendant answered "no" to each, and the polygrapher judged that he was telling the truth. *Ibid.*

Defendant's urinalysis tested positive for methamphetamine. *Ibid.* At the court-martial, defendant asked the military judge to admit the results of his polygraph. The court declined. *Ibid.* At trial defendant testified that he did not knowingly ingest drugs, implying that someone drugged him without his knowledge. See *id.*, at 443-444. Defendant was cross-examined on inconsistencies between his testimony and earlier statements to OSI. *Id.*, at 444. Defendant's credibility was also attacked at closing argument. *Ibid.* Defendant was convicted of "uttering bad checks, wrongfully using methamphetamine, failing to go to his appointed place of duty, and absenting himself for 13 days without authority . . . ." *Id.*, at 443.

The United States Court of Appeals for the Armed Forces reversed the conviction. It held that Military Rule of Evidence 707's *per se* exclusion of polygraph evidence violated defendant's right to present a defense. *Id.*, at 445.

SUMMARY OF ARGUMENT

The polygraph is a scientifically invalid machine that does not deserve the constitutional protection given by the court below. The problems with polygraphy are old and continuous;

polygraphers and polygraphs have a long history of promising much more than they deliver. There is no reason to believe that recent innovations change the validity of the polygraph as a lie detector, as the last substantial changes in polygraph techniques are over 30 years old.

The polygraph is not a valid lie detector. Its greatest problem is that there is no valid theoretical explanation for the polygraph as a lie detector. Because there is no specific physiological response for lying, polygraphy must rely on an indirect method measuring changes in relative stress levels to determine whether the suspect is lying. The problem with this measure is that many other emotional states such as fear or anger can cause such changes. Because the polygraph cannot discriminate between these emotional states and deception, any attempt by a polygrapher to classify a subject as truthful or deceptive is little more than a guess.

The polygraph also lacks empirical validation. The only studies that could justify the polygraph are those done in the field. Since laboratory experiments cannot reproduce the consequences of failing the exam to the subject, the necessary fear of being caught is lacking in lab studies. Field studies, the alternative to laboratory work, have their own problems. One difficulty is finding an appropriate measure outside the polygraph to determine whether the suspect is lying. One method, relying on an outside panel of judges to review the case, has the obvious problem of subjectivity and human fallibility. The other method, using confessions as a validation measure, creates a bias that exaggerates the polygraph's purported reliability.

The few appropriate studies do not support the case for the polygraph. The scientific community has concluded from the various studies that while the accuracy level of the polygraph may be somewhat better than chance, the polygraph has a substantial problem with unjustly accusing the innocent. This false positive rate has long been the Achilles' heel of the polygraph. The rate of failure to detect the guilty, the false negative rate, is almost certainly understated because those who fool the polygraph in the field will not be further investigated. The best explanation for whatever accuracy the polygraph possesses is that it is a great device for generating confessions.

Although it purports to be neutral on the admissibility of polygraphs, the decision below would create a constitutional right to exculpatory polygraphs. This would be a disaster for justice. If polygraph use becomes widespread, it will be a trap for the innocent and a potential windfall for the guilty. The best study shows that the polygraph is no better than chance at finding the innocent. Since an adverse polygraph will have to be admitted against a defendant in order to validate the initial examination, polygraphs will likely wind up convicting innocent defendants. Since the polygraph can be beaten through techniques that are relatively easy to learn and employ, the widespread use of exculpatory polygraphs creates a potential windfall for guilty defendants who have little to lose by taking a polygraph examination that they can learn to beat.

The decision below improperly extends this Court's right to present evidence jurisprudence. *Chambers* v. *Mississippi*, 410 U. S. 284 (1973) was very fact-specific and involved the denial of highly exculpatory evidence. *Rock* v. *Arkansas*, 483 U. S. 44 (1987) dealt with the arbitrary denial of a defendant's right to testify on her own behalf. The polygraph is invalid, threatens the innocent, will be overvalued by juries, and invades the jury's province as the primary finder of credibility. These important policy concerns all readily distinguish Military Rule of Evidence 707 from the arbitrary limitations of highly exculpatory evidence overturned in *Chambers* and *Rock*.

The decision below is not limited to striking down exclusions of polygraph evidence. It threatens any categorical exclusion of evidence, such as privileges, competency rules, and rape shield laws. This is an unwarranted abrogation of state and federal rulemakers' ability to create rules of evidence. Such a breathtaking extension of judicial authority cannot be allowed to stand.

ARGUMENT

I. The validity of polygraph testing is at best dubious and is unlikely to ever improve.

In its decision below, the Court of Appeals for the Armed Forces claimed that it was not endorsing the use of polygraphs. See *United States* v. *Scheffer*, 44 M. J. 442, 446 (1996). Instead, it saw its decision as serving "the truth-seeking function . . . by keeping the door open to scientific advances." *Ibid.* So long as Military Rule of Evidence 707 was valid, the court could not "determine 'whether polygraph technique can be said to have made sufficient technological advance in the 70 years since *Frye* to constitute the type of "scientific, technical, or other specialized knowledge" envisioned by Rule 702 and *Daubert*.' " *Ibid.* (quoting *United States* v. *Posado*, 57 F. 3d 428, 433 (CA5 1995)).

This ignores the enormous problems posed by polygraph evidence. The idea of "lie detectors" is as old as the law. Equally old is the fact that these detectors have always promised much more than they can deliver. The polygraph is no different. It has a long history of falling short of the claims of its inventors. No recent events have changed this situation. As this section will demonstrate, the polygraph is a test with no sound theoretical basis; its validity is unproven and is likely to be unprovable. Striking down an act of the Commander-in-Chief,[2] if it is to be done at all on an evidentiary rule, should be based on evidence much stronger than this.

A. A Brief History.

Most disciplines that attain recognition as valid scientific evidence do so relatively quickly. DNA "fingerprinting" was first introduced in American courts in 1988. See Lander & Budowle, DNA Fingerprinting Dispute Laid to Rest, 371 Nature 735 (Oct. 27, 1994). While its initial acceptance was accompanied with

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2. Under Article 36 of the Uniform Code of Military Justice, the President, as Commander-in-Chief, may establish rules of evidence for courts-martial. See 10 U. S. C. § 836(a). This delegation of power is constitutional. See *Loving* v. *United States*, 517 U. S. ___, 135 L. Ed. 2d 36, 56-57, 116 S. Ct. 1737, 1749 (1996).

controversies over techniques and its application, see *ibid.*, by 1994 "the DNA fingerprinting controversy had been resolved." *Id.*, at 738.

The field of lie detection has a much longer and much more checkered past. Efforts to ferret out liars through means other than human judgment are as old as the law. Water ordeals are found in Hammurabi's Code and the ancient Hindu Laws of Manu. See Underwood, Truth Verifiers: From the Hot Iron to the Lie Detector, 84 Ky. L. J. 597, 602 (1996). The ordeal, whether by water, hot iron, or other means, continued, even during the development of the common law. See 4 W. Blackstone, Commentaries 338 (1st ed. 1769).

The polygraph is the modern version of the ordeal. The first polygraph was invented by William Martson, a psychologist with a law degree. See D. Lykken, A Tremor in the Blood 27 (1981). Martson's device measured the subject's systolic blood pressure. See Underwood, 84 Ky. L. J., at 629. In spite of relentless self-promotion, see Lykken, *supra*, at 27, this machine was rejected in the landmark case of *Frye* v. *United States*, 293 F. 1013 (D. C. Cir. 1923), superseded by *Daubert* v. *Merrell Dow Pharmaceuticals, Inc.*, 509 U. S. 579 (1993). See 84 Ky. L. J., at 629.[3]

Marston's work was taken up by John Larson, a police officer turned forensic psychologist. *Ibid.* He developed the forerunner of the modern polygraph, which measured and graphed pulse, blood pressure, and respiration. Once again, however, this machine came up short. "Larson's honest scientific bent compelled him to subject his own theories to rigorous testing, and he wound up (bitterly?) rejecting polygraphy as a 'racket' and a 'psychological third degree.' " *Ibid.*

A student of Larson's, Leonarde Keeler, developed the modern form of the polygraph by adding a measurement of galvanic skin resistance. See *id.*, at 630. This work occurred in the 1920's and 1930's. See Lykken, *supra*, at 30. The last major

3. Marston's work was better received in his other career, as Charles Moulton, the creator of the comic character "Wonder Woman," who had a magic lasso that made people tell the truth. See Lykken, Reply to Raskin & Kircher, 27 Jurimetrics J. 278, 282 (1987).

breakthrough in polygraph testing started just after World War II, when in 1947 John Reid started to develop the control question technique, see *id.*, at 31-32, which with some refinements is now the majority approach among American polygraphers. *Id.*, at 32-33. Those refinements involve scoring, where many polygraphers now employ a more systematic "zone of comparison" format, which develops a numerical score to determine whether the suspect is lying. See *id.*, at 34.[4] There is also developmental work now being done in computerized scoring and in finding less intrusive sensors. See Yankee, The Current Status of Research in Forensic Psychophysiology and Its Application in the Psychophysiological Detection of Deception, 40 J. Forensic Sciences 63 (1995). This work, however, is still considered experimental, even by its advocates. See *id.*, at 66.

The notion that tremendous recent advances in polygraphy justify its acceptance as scientific evidence is seriously misplaced. While polygraphs may now be less dangerous to justice than the one rejected in *Frye*, the basics of the polygraph have remained relatively unchanged for over 30 years.

What has changed is the willingness of a handful of courts to accept the polygraph, and the size of the polygraph's lobby. See Furedy, The North American CQT Polygraph and the Legal Profession: A Case of Canadian Credulity and a Cause for Cultural Concern, 31 Crim. L. Q. 431 (1989) (reporting annual rate of over two million tests in the U. S.). Whatever impact these claims might have in a jurisdiction without a specific rule on point, it takes more than this to invoke the Due Process Clause or the Sixth Amendment to strike down the judgment of the rule-making authority.

B. The Polygraph in Action.

The polygraph is simply a machine that records and graphs up to four different physical responses: (1) galvanic skin response; (2) the "cardio" response, roughly the mean of the systolic and diastolic blood pressures; (3) respiration; and, if used, (4)

4. The other scoring method is called "global scoring," where the polygrapher places more reliance on factors outside the polygraph such as the subject's behavioral symptoms. See *id.*, at 32-33.

"changes in the peripheral vasculature, as represented by blood flow in the tip of the index finger." Furedy & Heselgrave, Validity of the Lie Detector, A Psychological Perspective, 15 Crim. Just. & Behav. 219, 225-226 (1988). These responses are simultaneously and continuously recorded on a chart. Giannelli, Forensic Science: Polygraph Evidence: Part I, 30 Crim. L. Bull. 262, 264 (1994). The machine, however, does not detect deception. "It is the examiner who, based on these readings, infers deception." *Ibid.*

The examiner is the single most important component of the polygraph test.

> "Even the proponents of the polygraph technique agree that the examiner, and not the machine, is the crucial factor in arriving at reliable results. The examiner's expertise is critical in (1) determining the suitability of the subject for testing; (2) formulating proper test questions; (3) establishing the necessary rapport with the subject; (4) detecting attempts to mask or create chart reactions, or other countermeasures; (5) stimulating the subject to react; and (6) interpreting the charts." *Ibid.* (footnote omitted).

Before the examination, the examiner conducts a pretest interview with the subject. This serves to acquaint the subject with the polygraph in order to convince him of the polygraph's effectiveness. The examiner will also use the interview to determine whether the subject is suitable for examination and to formulate test questions with the subject's help. See *id.*, at 265. After this, the questioning begins.

There are three basic questioning techniques. The oldest is the relevant/irrelevant (R/I) test, where the relevant questions are incriminating and the subject's responses to the questions are compared to the responses to neutral, irrelevant questions. If the polygraphic reactions to the relevant questions are strong relative to the irrelevant questions, then the subject is considered deceptive. D. Lykken, a Tremor in the Blood 105 (1981). This procedure has been roundly criticized as relying on the "wildly implausible" assumption that a truthful subject will not be aroused by relevant questions. *Id.*, at 106; see also Giannelli, 30 Crim. L. Bull., at 265-266; Furedy & Heselgrave, 15 Crim. Just. & Behav., at 227.

Although still used by some polygraphers, the R/I test has largely been replaced by the Control Question Test (CQT).[5] See 15 Crim. Just. & Behav., at 227. This method adds a third type of question, a control question, to the relevant and irrelevant questions. See Giannelli, 30 Crim. L. Bull., at 266. The control questions are

> "designed to elicit at least as much emotion as the relevant questions do for the innocent. For example, the polygrapher may establish during the first phase that the interviewee has stolen something on a previous occasion. Then the polygrapher asks the interviewee to answer 'no' (i.e., lie) to the following control question: 'Apart from the present problem, did you ever steal anything in your life?' The deception on this question by an innocent subject is presumed to produce a larger response than the (truthful) answer by him or her to the relevant question." Furedy & Heselgrave, 15 Crim. Just. & Behav., at 227.

This method has its own problems. It is extremely difficult to design a proper control question in a criminal investigation because any suspect, even an innocent one, is likely to have a high level of fear regarding the consequences of answering the relevant question. See Alpher & Blanton, The Accuracy of Lie Detection: Why Lie Tests Based on the Polygraph Should Not Be Admitted Into Evidence Today, 9 Law & Psychol. Rev. 67, 72 (1985). Its substantial theoretical problems are further explained in part I C 1, *post*. Because it is by far the most common exam, the CQT will be the focus of the rest of the polygraph analysis in this brief.[6]

The examination consists of ten to twelve questions. The first one or two are irrelevant, then followed by interspersed control, relevant, and irrelevant questions. While the suspect knows what questions will be asked, he does not know in what order the

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5. The CQT is sometimes called the Control Question Technique. See *ibid.*

6. One other form of questioning is called the Guilty Knowledge Test. This test looks to the polygraphic response to questions concerning knowledge possessed only by the police and the perpetrator. The concealed knowledge requirement greatly limits its use. See Giannelli, 30 Crim. L. Bull., at 266. Obviously, an examiner retained by an innocent defendant would not have the requisite information.

examiner will ask them. Giannelli, 30 Crim. L. Bull., at 267. The examination lasts several minutes and is repeated at least once; it is often repeated two or three times. *Ibid.*

The polygrapher then determines whether the subject is truthful by scoring the examination. There are three methods of scoring: global, numerical, and computerized. *Id.*, at 268. Global evaluation is the oldest method, involving "an overall impression of the charts plus other factors," such as the subject's demeanor. *Ibid.* This is strongly criticized by some as injecting too much subjectivity and speculation into the test. See *ibid.*

Under the numerical method, only the recorded chart reactions are considered. There are several different systems for analyzing the charts. They typically compare the reactions to each pair of relevant and control questions and then score the comparison. The scores range from +3 for a large reaction to a control question to a -3 for a similar reaction to the relevant question. A total score of +6 or more indicates truth while -6 or less is deceptive. *Ibid.* By giving a numerical value to truth, this method is believed to be more objective. *Ibid.* Any other result is labeled inconclusive. However others criticize this method because the scoring is at least partially subjective and the +6 cut off is arbitrary. Furedy & Heselgrave, *supra*, 15 Crim. Just. & Behav., at 230. Computer scoring is still experimental, see *ante*, at 7, and is really a specific application of the numerical approach. Giannelli, 30 Crim. L. Bull., at 268.

C. The Invalid Test.

The polygraph test starts off on the wrong foot in the race for respectability. Because it attempts to measure a mental characteristic, the state of lying or truth telling, the polygraph is a psychological test. See Kleinmuntz & Szucko, On the Fallibility of Lie Detection, 17 Law & Soc. Rev. 85, 86 (1982). As an aspiring social science, polygraphy is softer and more uncertain than other, "harder" disciplines. See Note, Social Statistics in the Courtroom: The Debate Resurfaces in *McCleskey* v. *Kemp*, 62 Notre Dame L. Rev. 688, 696 (1987). Therefore, its validity is more difficult to prove than tests grounded in the physical sciences. Thus, any claims of infallibility for polygraphs should be viewed with great caution. Absolute proof of the polygraph's validity may be

unattainable. As *amicus* will demonstrate, the case for the polygraph's invalidity is both easier to make and much stronger.

1. Theoretical problems.

Scientific evidence does not appear out of thin air. Integral to any scientific test or other process that produces evidence is the theoretical basis of the scientific procedure in question. " 'Science is not an encyclopedic body of knowledge about the universe. Instead, it represents a *process* for proposing and refining theoretical explanations about the world that are subject to further testing and refinement.' " *Daubert* v. *Merrell Dow Pharmaceuticals, Inc.*, 509 U. S. 579, 590 (1993) (quoting Brief for American Association for the Advancement of Science et al. as *Amici Curiae* (emphasis in original)). Thus, science is defined as "[t]he observation, identification, description, experimental investigation, and *theoretical explanation* of phenomena." American Heritage Dictionary 1616, cl. 2 (3d ed. 1992) (emphasis added). By explaining the relationship between events or phenomena, theory is the glue that holds together a body of knowledge, making it a science.

The polygraph lacks an appropriate theoretical explanation as a lie detector. The most straightforward theoretical explanation of the polygraph's purported truth telling abilities would be that there is a specific physiological response to lying, which the polygraph measures. "The problem with lie detection *per se* is that the attribute of interest, lying or truthfulness, cannot be directly measured." Alpher & Blanton, The Accuracy of Lie Detection: Why Lie Tests Based on the Polygraph Should Not Be Admitted into Evidence Today, 9 Law & Psychol. Rev. 67, 68, n. 7 (1985) (emphasis in original). The marks on the polygraph simply do not directly measure lying. "Autonomic arousal may be caused by deception, but it may also be caused by myriad potentially confounding factors, ranging from stress, fear and anxiety, to anger and embarrassment. *Deception itself cannot be measured directly.*" Steinbrook, The Polygraph Test—A Flawed Diagnostic Method, 327 New Eng. J. Med. 122, 122 (1992) (emphasis added). Because "there is no set of responses—physiological or otherwise—that humans emit only when lying or that they produce only when telling the truth," Kleinmuntz & Szucko, 17 Law &

Soc. Rev., at 87, polygraphy, as currently practiced through the CQT lacks "a sound theoretical basis . . . ." Patrick & Iacono, Validity of the Control Question Polygraph Test: The Problem of Sampling Bias, 76 J. Applied Psychol. 229 (1991).

The consequence of this absence of a foundation for the validity of the polygraph as a lie detector is devastating. As an article in Britain's leading medical journal concludes:

> "There is no rational scientific basis for any machine to detect liars consistently, since there is no known consistent physiological response unique to the cognitive state of lying. Public policy makers should therefore ponder the very weak scientific foundation upon which the polygraph rests as they make decisions affecting its use in society." Brett, Phillips, & Beary, Predictive Power of the Polygraph: Can the "Lie Detector" Really Detect Liars, Lancet [1986] i:544, 546-547 (footnote omitted).

Military Rule of Evidence 707 simply reflects the Commander-in-Chief's understanding of the polygraph's substantial limitations.

The theoretical weakness of polygraphs, and the fact that this situation continues over 75 years since polygraphy was rejected in *Frye* v. *United States*, 293 F. 1013 (D. C. Cir. 1923), is most likely explained by its unscientific development. The "evolutionary development of traditional polygraph procedures has been backwards: Field development has preceded systematic laboratory evaluation of the procedures. This may reflect that the traditional procedures were developed by lawyers and law enforcement officials, not by scientists." Bashore & Rapp, Are There Alternatives to Traditional Polygraph Procedures? 113 Psychol. Bull. 3, 15 (1993). As "[n]one of the major figures in the development of instrumental interrogation methods have had credentials as scientists," D. Lykken, A Tremor in the Blood 42 (1981), it is understandable that polygraphy lacks the most basic of scientific credentials. This also helps to explain why the polygraph does not conform to the standards for psychological testing of the American Psychological Association. Steinbrook, 327 New Eng. J. Med., at 122-123.

The problem with the polygraph is that many very different emotional responses can cause very similar reactions on the polygraph.

> "No doubt when we tell a lie many of us experience an inner turmoil, but we experience a similar turmoil when we are falsely accused of a crime, when we are anxious about having to defend ourselves against accusations, when we are questioned about sensitive topics—and, for that matter, when we are elated or otherwise emotionally stirred." Kleinmuntz & Szucko, 17 Law & Soc. Rev., at 87; see also Steinbrook, 327 New Eng. J. Med., at 122 ("Autonomic arousal may be caused by . . . stress, fear and anxiety to anger and embarrassment").

The theoretical critique has important practical effects. Perhaps the greatest danger posed by the polygraph is its strong tendency to misidentify the truthful as deceptive. See *post*, at 17. The fact that many different emotions may cause similar reactions on the polygraph helps explain this problem. An innocent person could be angry when asked the accusatory control question. Because " 'the polygraph pens do no special dance when we are lying,' " see 17 Law & Soc. Rev., at 88, this anger is likely to be interpreted as deception, particularly if the less subjective numerical scoring method is used.

The theoretical problems of polygraph testing are found even in its terminology. The Control Question Test is a misnomer.

> "[T]he term *control* here is not used in the scientific sense. In the scientific sense of the term, assuming the phenomenon to be investigated is deception, the control question should be identical in every respect to the relevant question except for the presence of deception in the latter question; in terms of the logic of scientific experimentation, the relevant question is like the experimental condition." Furedy & Heselgrave, A Psychological Perspective, Validity of the Lie Detector, 15 Crim. Just. & Behav. 219, 227 (1988) (emphasis in original).

True "control" in the scientific sense is missing "because it is impossible to estimate what the relevant response would have been if the answer to the relevant question had been honest." *Id.*, at 234. In reality, control questioning, like the polygraph, is no more than guesswork.

It is possible for the polygraph to lack theoretical explanation yet still be considered scientific. "[C]arefully controlled empirical research" could establish the validity of polygraphs. See Patrick

& Iacono, 76 J. Applied Psychol., at 229. As the next section demonstrates, such evidence is sorely lacking.

2. The empirical record.

Any effort to establish an adequate empirical record of the polygraph's validity as a lie detector faces formidable obstacles. As with the vast majority of social science studies, it is extremely difficult to set up proper experimental conditions for assessing the polygraph's validity. There are two experimental methods for assessing polygraph validity, laboratory and field experiments. In laboratory experiments the researchers measure the ability of polygraphers to determine whether volunteers are telling the truth concerning some predetermined story or set of events. Although easily controlled, lab experiments have substantial limitations.

> "There are important differences between the laboratory and forensic environments that may undermine the validity of these experiments. The principal difference is that fear of detection is not as strong for experimental subjects. In addition, some of the laboratory studies fail to replicate field conditions; they use neither experienced examiners nor general population samples as subjects." Giannelli, Forensic Science: Polygraph Evidence: Part I, 30 Crim. L. Bull. 262, 270-271 (1994) (footnotes omitted).

Given the considerable importance fear of detection has in the polygraph's credibility, see *ante*, at 19, it stretches credulity to believe that the result of a polygraph is close to being as important to a volunteer for an experiment as it is to a person threatened with losing one's job or liberty. The fact that some researchers try to address this problem by using "substantial cash bonuses," see *id.*, at 270, n. 58, does not make the laboratory polygraph life-like.

> "Since the emotional impact of such artificial simulations, as well as the importance to the individual of the outcome, is inevitably very different than in real life situations, such laboratory assessments provide no valid basis for estimating the accuracy of the lie test in the field." Lykken, The Lie Detector and the Law, 8 Crim. Defense 19, 23 (1981).

The other method of assessing validity, "field studies of actual cases," Giannelli, 30 Crim. L. Bull., at 270, has its own problems.

The greatest problem with determining whether the polygraph has been accurate in the field is finding "a valid criterion for establishing guilt or innocence" apart from the result of the polygraph. See *ibid.* "Some studies use panels of trial attorneys to determine guilt, an approach with obvious problems." *Ibid.* As another researcher noted, "[i]t cannot be assured that all judicial [panel] decisions were correct, because there is no way of independently estimating the 'ground truth.' " Furedy & Heselgrave, Validity of the Lie Detector, A Psychological Perspective, 15 Crim. Just. & Behav. 219, 238 (1988).

Most other field studies use subsequent confessions to determine actual guilt and thus polygraph validity. See Giannelli, *supra*, 30 Crim. L. Bull., at 270; see also Patrick & Iacono, *supra*, 76 J. of Applied Psychol., at 229. Once again, this method comes with significant problems. "Although confessions are perhaps the most certain criterion for ground truth available, and also the most frequently used in field research, an exclusive reliance on confession-verified cases may produce a specific sampling bias that results in inflated accuracy figures." 76 J. of Applied Psychol., at 229. The bias is created because the polygrapher is too closely associated with the confessions which are used to assess their accuracy.

If there is one thing that a polygraph test does well, it is getting people to confess. The inherently stressful nature of the polygraph, when combined with an experienced questioner used to dealing with "deceptive" results, is a difficult combination for many suspects to withstand. Thus, many consider the polygraph a "painless third degree." See Goldzband, The Polygraph and Psychiatrists, 35 J. Forensic Sciences 391, 397 (1990); see also D. Lykken, A Tremor in the Blood 211-212 (1981) (polygraph as a "fourth degree" that induces confession). Indeed, its ability to generate confessions is the most likely reason for the continued use of the polygraph by law enforcement and security personnel. See 35 J. of Forensic Sciences, at 398-399.

It thus comes as no surprise that in field studies "confessions are most often obtained by polygraphers after a subject has failed the polygraph test." Patrick & Iacono, 76 J. of Applied Psychol., at 229. This fact, when combined with human nature, explains why so many field studies are strongly biased towards the polygraph's validity.

"A deceptive polygraph test outcome provides the incentive for an examiner to interrogate a subject, and if the subject confesses, the polygraph outcome is confirmed. (In the ultimate version of this self-fulfilling prophecy, an examiner may accept a minor admission from the subject—one that does not relate specifically to the issue of the polygraph test—as evidence of the subject's guilt.) One the other hand, guilty subjects who produce truthful outcomes are not interrogated, and therefore there will be no opportunity for false negative errors to appear in a confession-verified sample. False positive errors will lack representation for similar reasons: If an innocent person produces a deceptive polygraph test outcome, he or she will be presumed guilty (even though a confession is not obtained), and further investigative effort will seldom be expended to identify the real culprit. As a result of these selection biases, virtually all of the cases included in a confession-verified test sample will be (a) those in which the examiner's opinion was deceptive and the subject confessed during post-test interrogation and (b) those in which a truthful opinion was subsequently confirmed by another suspect who confessed following a failed polygraph test." *Ibid.*

This problem is abetted by the practice of subjective scoring used by many examiners to minimize errors. See *id.*, at 229-230. This can lead to a conclusive chart reading being relabeled as an inconclusive result because the chart is contrary to other evidence. As inconclusive charts are excluded from studies, the polygraph appears to be more valid than it really is. See *id.*, at 230.

Given these many complications, it is no surprise that much research on polygraph validity is muddled. The studies on polygraph accuracy give a range of accuracy percentages from over 90% from some polygraph proponents to 64% to 71% (against a chance rate of 50%) from more critical observers. See Furedy & Heselgrave, *supra*, 15 Crim. Just. & Behav., at 236; see also *id.*, at 238-242 (summarizing studies); Giannelli, *supra*, 30 Crim. L. Bull., at 271-274 (excerpting reports); U. S. Congress, Office of Technology Assessment, Scientific Validity of Polygraph Testing: A Review and Evaluation 97 (1983) (noting "wide variability of results"); American Medical Assn. Council on Scientific Affairs, Polygraph, 256 JAMA 1172, 1173 (1986).

While the professional polygraphers attempt to draw the brightest conclusions from this muddle, they are hardly disinterested observers. See *People* v. *Kelly*, 17 Cal. 3d 24, 38, 549 P. 2d 1240, 1249 (1976) (proponents of scientific evidence cannot rely solely on one expert whose career is based on the evidence). Although a handful of the scientific community may stand by the polygraph, most real scientists that have examined polygraphs are critical of its validity. See Furedy, The North American CQT Polygraph and the Legal Profession: A Case of Canadian Credulity and a Cause for Cultural Concern, 31 Crim. L. Q. 431, 441-442 (1989). The judgment of the bulk of the scientific community is that while the polygraph may be somewhat better than random at finding deception, it has significant problems with its rate of false positive tests. See, *e.g.*, Steinbrook, The Polygraph Test—A Flawed Diagnostic Method, 327 New Eng. J. Med. 122, 123 (1992); Brett, Phillips, & Beary, Predictive Power of the Polygraph: Can the "Lie Detector" Really Detect Liars, Lancet, [1986] i:544, 546-547; Council on Scientific Affairs, 256 JAMA, at 1175; Office of Technology Assessment, at 97; Furedy & Heselgrave, 15 Crim. Just. & Behav., at 243.

This is the polygraph's Achilles' heel. A "false positive" reading occurs when a truthful suspect "fails" the polygraph test, being improperly labeled a liar because of the positive score on the polygraph. See Furedy & Heselgrave, 15 Crim. Just. & Behav., at 222. Reports on polygraph accuracy consistently note problems with the false positive rate. See, *e.g.*, Giannelli, 30 Crim. L. Bull., at 271; Lykken, Polygraphic Interrogation, 307 Nature 681, 684 (1984); Furedy & Heselgrave, *supra*, 15 Crim. Just. & Behav., at 222; Steinbrook, 327 New Eng. J. Med., at 123; Patrick and Iacono, 76 J. of Applied Psychol., at 237; Brett, Phillips, & Beary, *supra,* Lancet, at 546; Bashore & Rapp, Are There Alternatives to Traditional Polygraph Procedures? 113 Psychol. Bull. 3, 6 (1993).

One of the most recent and thorough studies of polygraph accuracy found that "when solid criterion evidence is acquired for all possible cases and classifications are based on blind numerical scoring of the polygraph charts, *chance level accuracy figures are observed for innocent subjects.*" Patrick & Iacono, 76 J. of Applied Psychol., at 237 (emphasis added). As acceptance of exculpatory polygraph evidence will force courts to accept

inculpatory polygraphs, see part II, *post*, the decision below will become a trap for at least some innocent defendants.

The polygraph is a machine that has consistently promised more than it delivered. It has no sound theoretical basis. The assumptions underlying its alleged validity are unproven. The empirical case for the polygraph is at best weak and muddled, and may be incapable of being proven. Whatever accuracy the polygraph has displayed in field tests is the likely result of its efficiency as a confession-generating machine. Since many of the people being interrogated in the criminal investigations used for field testing are, in fact, guilty, the polygraph will seem to be accurate by getting these people to confess. But this does no good for the innocent unfairly tapped by the polygraph, and the machine's inaccuracy does not even make a good tool for exonerating those innocents it happens to identify at random.[7]

"The polygraph appeals to an often simplistic desire for certainty in the face of complexity and to misplaced faith in the power of a machine." Steinbrook, 327 New Eng. J. Med., at 123. The President understands this and has thus placed the polygraph outside the military courts.[8] This eminently sensible, scientifically sound decision should not be overturned by any court.

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7. For the hidden problem of false negatives and polygraphs and how it will further undercut the polygraph's utility to the criminal justice system, see *post*, at 20-22.

8. There is no contradiction between the President's decision to remove polygraphs from the courts and the continued use of the polygraph as an investigative tool by the federal government. Thus, while the Department of Defense does not recognize the scientific validity of the polygraph, it nonetheless employs the machine because it is " 'useful' " as an investigative tool. See Goldzband, The Polygraph and Psychiatrists, 35 J. Forensic Sciences 391, 398 (1990). As the then-Deputy Director of Counter intelligence said, " 'It's used because at times it causes people to talk, and valuable investigative information is gained. You would be amazed at what some people will talk about!' " *Ibid.*

II. The decision below, if upheld, carries a substantial risk of convicting the innocent and letting the guilty go free.

The decision below claims to be neutral on the question of whether polygraph evidence should be admissible to exonerate criminal defendants. See *United States* v. *Scheffer*, 44 M. J. 442, 446 (1996). Its sympathies, however, may have been betrayed by its favorable citation of cases supporting the polygraph's use, see *ibid.* (citing *United States* v. *Piccinonna*, 885 F. 2d 1529, 1532 (CA11 1989); *United States* v. *Galbreth*, 908 F. Supp. 877 (D NM 1995); *United States* v. *Crumby*, 895 F. Supp. 1354 (D Ariz. 1995), and its comparing polygraphs to much more valid DNA and hair analysis evidence. See *ibid.* Furthermore, it asserts that most federal courts allow at least limited admissibility of polygraph evidence. See 44 M. J., at 444-445. Although it says it still leaves the admissibility decision to the trial court, *amicus* submits that the writing is on the wall, and this and every other trial court will read the writing and admit polygraph evidence as a matter of constitutional law.

This is a potential disaster for criminal justice in this country. Polygraph evidence cannot be limited to exculpatory uses. In order for a polygraph to have any chance of validity, the suspect must genuinely fear being caught lying—there must be some threat of sufficiently adverse consequences if the suspect is caught in a lie. See American Medical Assn. Council on Scientific Affairs, Polygraph, 256 JAMA 1172, 1174 (1986); Giannelli, Forensic Science: Polygraph Evidence: Part I, 30 Crim. L. Bull. 262, 270-271 (1994). Therefore, a one-way rule that a polygraph test is admissible for the defendant but not against him would undercut whatever validity the evidence might otherwise have.

For the overwhelming majority of criminal defendants, the consequences of a failed polygraph test will be having the test results admitted against them. Some defendants who are federal employees, like the defendant in the present case, may be able to argue that the threat of a lost job if the polygraph is failed is enough to validate the polygraph. But as exculpatory polygraphs become admissible nationwide, most criminal defendants will not have taken a polygraph under orders of their employers. Instead, a defendant will have to submit to the polygraph on the condition that an adverse result can be used against him as an admission of guilt.

This is one of the most disturbing consequences of the decision below. Because the polygraph so often misidentifies the innocent as guilty, see *ante*, at 17, many innocent suspects will wind up being incriminated by a failed polygraph. See Patrick & Iacono, Validity of the Control Question Polygraph Test: The Problem of Sampling Bias, 76 J. Applied Psychol. 229, 237 (1991) (noting that for polygraphs "chance-level accuracy figures are observed for innocent subjects"). As an inculpatory polygraph is likely to be given great weight by the jury, see *post*, at 25, innocent people will be convicted or plead guilty as a result of failing polygraph tests.

Amicus does not pretend to know if more innocents will be exculpated or inculpated by polygraphs. But this Court knows that our system is designed to find and free the innocent. Admitting polygraph evidence short circuits this fundamental component of our system and replaces it with smoke and mirrors.

- Admitting polygraphs creates further injustice. The proportion of people successfully beating the polygraph by generating false negative results is almost certainly understated in the field studies. In the field, once a person passes the polygraph, the investigation of that person is typically at an end. Thus most false negatives slip through the system. See Patrick & Iacono, 76 J. Applied Psychol., at 237 ("a guilty subject who produced a truthful score would almost never be discovered because there would be no reason to continue investigating him or her"); see also Giannelli, *supra*, 30 Crim. L. Bull, at 270 ("error rates frequently cited by field examiners are suspect because they are often based on the assumption that polygraph results are correct unless proven otherwise").

It is possible to "beat" a polygraph test. While ethical and practical considerations prevent countermeasures from being tested in the field, several careful laboratory experiments have shown that people can be trained to deceive polygraphs. Researchers have found that "training in simple physical maneuvers, such as biting the tongue or pressing the toes on the floor, can be effective in defeating the polygraph tests by enhancing physiological reactions to control questions." Honts, Raskin, & Kircher, Mental and Physical Countermeasures Reduce the Accuracy of Polygraph Tests, 79 J. Applied Psychol. 252 (1994).

Honts, Raskin, and Kircher repeated such results. In their experiment, a portion of the subjects were told to go to a room and steal a rare coin. *Id.*, at 253. These subjects were told that if anyone other than the experimenter found them out, they might be arrested. *Ibid.* Of the stealing subjects, some were trained in countermeasures while others were not. Finally, another set of subjects did not engage in the mock theft. All of the subjects knew that they would take a polygraph regarding the theft at a later date. *Ibid.*

The countermeasures were either physical, pressing one's toes or biting the tongue, or mental, counting backwards by 7s from a number larger than 200. *Ibid.* The subjects were trained to employ these countermeasures when the control questions were being asked. *Ibid.* The training took 30 minutes.

The results were startling. Only 26% of those who said they complied with the countermeasures failed to the polygraph test. *Id.*, at 255. Furthermore, the polygraphers rarely detected the countermeasures. Only 12% of those using physical countermeasures were caught, and none of those using mental countermeasures were caught. However, 15% of innocent suspects were falsely accused of using countermeasures. *Id.*, at 256. As the authors, important advocates of the polygraph,[9] recognized, "[t]he results of the present study strongly suggest that control question polygraph tests may be defeated by guilty subjects trained in the use of physical or mental countermeasures." *Id.*, at 257.

These countermeasures were not difficult to learn or employ. There is at least anecdotal evidence that a prisoner successfully taught fellow inmates similar countermeasures. See D. Lykken, A Tremor in the Blood 240-241 (1981); see also Lykken, The Validity of Tests: Caveat Emptor, 27 Jurimetrics J. 263, 267 (1987) (noting informal study in which 24 of 27 inmates given 15-minute instruction beat polygraph tests concerning prison rules violations). If the decision below is upheld and the use of polygraphs in court spreads, this knowledge will become more and more common. As the knowledge of countermeasures spreads, it will inevitably wind its way through our criminal population.

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9. One of the authors, David Raskin, is considered a leading scientific proponent of polygraphs. See Bashore & Rapp, Are There Alternatives to Traditional Polygraph Procedures? 113 Psychol. Bull. 3, 4 (1993).

Although some may not learn, there will be many offenders with knowledge of polygraph countermeasures, and at least some of these will use them successfully.

Amicus submits that if polygraphs become institutionalized in the criminal courts, they will become increasingly a tool for freeing the guilty. The high false positive rate may ensure that relatively few truly innocent defendants will risk the polygraph. Guilty defendants, however, have less to lose, particularly if they know a few simple countermeasures. Over time, the polygraph should thus be expected to primarily exculpate the guilty, turning the polygraph from a confession machine into a true tool of injustice.

III. Military Rule of Evidence 707's *per se* exclusion of polygraph evidence does not violate defendant's right to present evidence.

Some limits on a defendant's ability to present evidence can be unconstitutional. Under *Rock* v. *Arkansas*, 483 U. S. 44 (1987) and *Chambers* v. *Mississippi*, 410 U. S. 284 (1973), defendants have a carefully circumscribed right to present evidence. This right is much narrower than the general right invented by the court below, and is not violated by Military Rule of Evidence 707's prohibition of polygraph evidence.

Chambers was a very reasonable response to a very unreasonable situation. Chambers was convicted of shooting and killing a police officer, Aaron Liberty, during a melee between a small mob and a group of police officers trying to effect an arrest. See 410 U. S., at 285-286. Another man, McDonald, subsequently confessed to Chambers' attorneys that he had killed Officer Liberty. *Id.*, at 287. Later, McDonald repudiated his confession. *Id.*, at 288.

Part of Chambers' defense was that McDonald had committed the killing, but he was not allowed to present evidence that McDonald confessed on four separate occasions. See *id.*, at 289. Chambers could not cross-examine McDonald about his confession because Mississippi followed the common law rule that a

party could not impeach his own witness.[10] *Id.*, at 295. Chambers was defeated in his attempt to bring in the testimony of three people to whom McDonald confessed on the grounds that they were hearsay. *Id.*, at 298.

While the Court found the illogical and heavily criticized voucher rule to violate defendant's confrontation rights, it did not reverse the conviction on the voucher rule alone. See *ibid.* Mississippi's use of the hearsay rule, when combined with the confrontation violation, mandated reversal.

While Mississippi admitted hearsay statements made against pecuniary interest, it did not admit statements made against penal interest like McDonald's confessions. *Id.*, at 299. The *Chambers* Court did not categorically forbid state hearsay rules from excluding exculpatory third-party confessions. See *id.*, at 300. Instead, *Chambers* relied on the fact that "[t]he hearsay statements involved in this case were originally made and subsequently offered at trial under circumstances that provided considerable assurance of their reliability." *Ibid.* The indicia of reliability were both numerous and strong. Three confessions were made. They were made spontaneously to close acquaintances soon after the shooting. They were decidedly against McDonald's self-interest, and, finally, McDonald was present for cross-examination. See *id.*, at 300-301. Given this unique combination, exclusion of the evidence violated Chambers' right to present evidence on his behalf.

The strength of Chambers' fact-specific claim demonstrates that this right is very limited. "In the exercise of this right, the accused, as is required of the State, must comply with established rules of procedure and evidence designed to assure both fairness and reliability in the ascertainment of guilt and innocence." *Id.*, at 302. Exceptions to the hearsay rule admitting inherently trustworthy evidence were long accepted, and defendant's evidence "was well within the basic rationale." *Ibid.* Furthermore, "[t]hat testimony also was *critical* to Chambers' defense." *Ibid.* (emphasis added). Therefore, "[i]n *these circumstances*, where constitutional rights directly affecting the ascertainment of

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10. Chambers' motion to call McDonald and examine him as an adverse witness was denied by the trial court. See *id.*, at 291-292.

guilt are implicated, the hearsay rule may not be applied *mechanistically* to defeat the ends of justice." *Ibid.* (emphasis added).

The prohibition against polygraphs is far removed from this narrow, fact-specific holding. There is no strongly reliable confession of a third party in the present case. The polygraph has neither a theoretical nor an empirical basis for its professed validity as a lie detector. See part I C, *ante*, at 19-22. It is no more than a confession-generating machine. See *ante*, at 15. This machine consistently identifies many innocents as guilty, see *ante*, at 17, and has consistently promised much more than it has delivered. See part I A, *ante*, at 5-7. There is nothing *mechanistic* about this rule of evidence. By banning the polygraph from the courts, Military Rule of Evidence 707 saves innocents and helps convict the guilty. See part II, *ante*. No policy can be more important to the criminal justice system.

Chambers "establish[ed] no new principles of constitutional law." *Chambers*, 410 U. S., at 302. It did nothing to diminish "the respect traditionally accorded to the States in the establishment and implementation of their own criminal trial rules and procedures." *Id.*, at 302-303. Instead, "we hold quite simply that under the *facts and circumstances of this case* the rulings of the trial court deprived Chambers of a fair trial." *Ibid.* (emphasis added). This cannot invalidate the important policies and very different circumstances found in the present case.

Rock v. *Arkansas*, *supra*, is as readily distinguished. The *Rock* Court dealt with a "*per se* rule excluding a criminal defendant's hypnotically refreshed testimony." 483 U. S., at 49. Defendant's claim was based on her right to testify on her own behalf. The *Rock* Court drew this right from several constitutional provisions, see *id.*, at 51, and its own decisions, including *Chambers*. See *id.*, at 55. It concluded that "restrictions of a defendant's right to testify may not be arbitrary or disproportionate to the purposes they are designed to serve." *Id.*, at 55-56.

The present case is most easily distinguished from *Rock* because it does not involve defendant's own testimony. Rock was convicted of manslaughter, see *id.*, at 48, a crime for which there will often be few witnesses. Preventing defendant from testifying will thus often devastate the defense. See *id.*, at 57. *Rock* took care to distinguish the rules of other states excluding hypnotically

refreshed testimony, noting that they apply to "the testimony of *witnesses*, not . . . the testimony of the *defendant*." *Ibid.* (emphasis in original); *id.*, at 58.

One of the many problems with polygraph evidence is that it is much less relevant th n it appears. An exculpatory polygraph is only relevant to bolster the credibility of a defendant who testifies. See, *e.g.*, 3A J. Wigmore, Evidence § 99° (Chadbourn rev. 1970); *Regina* v. *Béland*, [1987] 2 S. C. R. 398, 415, 43 D. L. R. 4th 641, 654 (Canada). This relevance is diminished by the polygraph's inaccuracy—its high false positive and understated false negative rates. See *ante*, at 17-21.

This diminished relevance stands against the polygraph's inherently high risk of prejudicing the jury. This alleged truth machine appeals to a "simplistic desire for certainty . . . ." Steinbrook, The Polygraph Test—A Flawed Diagnostic Method, 327 New Eng. J. Med. 122, 123 (1992). There is thus the inevitable risk that the jury will place too much weight on an all too fallible lie test "which nonetheless possesses an aura of scientific truth." Alpher & Blanton, The Accuracy of Lie Detection: Why Lie Tests Based on the Polygraph Should Not Be Admitted Into Evidence Today, 9 Law & Psychol. Rev. 67, 68-69 (1985); *United States* v. *Alexander*, 526 F. 2d 161, 168 (CA8 1975) ("When polygraph evidence is offered . . . it is likely to be shrouded with an aura of near infallibility, akin to the ancient Oracle of Delphi"). Common sense says that the jury is likely to believe, and rely on, an "expert" "scientist" who gives simple, direct testimony that sounds as if it is at the heart of the issue.

> "Uncertainty is painful to the decision maker. Complicated evidence can only be evaluated subjectively and subjectivity leads to doubt and disagreement. One longs for some straightforward, definitive datum that will resolve the conflict and impel a conclusion. This longing not infrequently leads one to invest any simple, quantitative, or otherwise specific bit of evidence with a greater weight than it deserves, with a predictive power that it does not really possess. In decision making, the objective dominates the subjective, the simple squeezes out the complicated, the quantitative gets more weight than the nonmetrial, dichotomous (yes/no, pass/fail) evidence supersedes the many-valued." D. Lykken, A Tremor in the Blood 69 (1981); see also *Alexander*, 526 F. 2d, at 168.

This balance must also take into account the role of the jury in determining credibility. Determining credibility is the "special province of the trier of fact." *Inwood Laboratories, Inc.* v. *Ives Laboratories, Inc.*, 456 U. S. 844, 856 (1982). The jury thus does not need an expert's assistance to determine whether a witness is lying. The polygraph is no more than a mechanical intrusion upon the jury. See, *e.g.*, *State* v. *Porter*, 241 Conn. 57, 1997 WL 265202 *27 (May 20, 1997); *Béland*, *supra*, 2 S. C. R., at 415-416, 43 D. L. R. 4th, at 654; *People* v. *Baynes*, 430 N. E. 2d 1070, 1079 (Ill. 1981) ("A trial by polygraph is an unwarranted intrusion into the jury function"); *Commonwealth* v. *Mendes*, 547 N. E. 2d 35, 41 (Mass. 1989); cf. *United States* v. *Bursten*, 560 F. 2d 779, 785 (CA7 1977) ("trial by machine"). The President's decision to ban polygraphs reflects the truth that the polygraph's prejudicial effect far outweighs any probative value it may have. See *Porter*, *supra*, 1997 WL, at *26.

Rock applied a balance of interests test to limits on defendant's testimony. See 483 U. S., at 56. Applying interest-related balancing tests to state criminal rules and procedures is normally disfavored. See *Medina* v. *California*, 505 U. S. 437, 443 (1992). *Rock* should thus not be loosed upon all the rules of evidence, but instead limited to protecting defendant's own testimony. Even if *Rock* exceeds these bounds, the balance of interests noted above clearly favors Military Rule of Evidence 707. There is nothing "arbitrary" about the President's decision. Nor are the overwhelming majority of the states acting arbitrarily when they reject polygraph evidence. See *Mendes*, *supra*, 547 N. E. 2d, at 39-40.

The decision below represents a dangerous expansion of this Court's right-to-present-evidence jurisprudence. Its focus on Military Rule of Evidence 707's status as *per se* rule, finding this to be a violation of *Rock*, see 44 M. J., at 446, threatens to overturn many rules of evidence. There are many *per se* rules that exclude relevant evidence. Privileges, see Fed. R. Evid. 501, competency requirements, see Fed. R. Evid. 605-606, and rape shield laws, see Fed. R. Evid. 412, are just some of the evidentiary rules that exclude entire categories of evidence.

The fact that some of these rules contain exceptions, see Fed. R. Evid. 412(b), would not exempt them from the decision below. What bothered the lower court was that Military Rule of Evidence 707 "bars otherwise admissible and relevant evidence

based on the mode of proof by categorically excluding polygraph evidence." *Scheffer*, 44 M. J., at 448. The Court of Appeals emphasized *Rock*'s statement that a rule cannot *per se* exclude evidence "that may be reliable in an individual case." *Id.*, at 446 (quoting *Rock*, *supra*, 483 U. S., at 61). Therefore, the trial court must be allowed to be the gatekeeper of polygraph evidence, making its own determination as to whether the polygraph is admissible. See *ibid.* (" 'We do not hold now that polygraph examinations are scientifically valid or that they will always assist the trier of fact, in this or any other *individual* case. We merely remove the obstacle of the *per se* rule against admissibility' " (quoting *United States* v. *Posado*, 57 F. 3d 428, 434 (CA5 1995) (emphasis added))). Privileges, competency, and the rape shield all keep entire categories of relevant evidence from the trial court. If *Rock*, as interpreted by the lower court, is not limited to defendant's own testimony, see *Scheffer*, 44 M. J., at 446, then these and other exclusionary rules are unconstitutional.

The court below has transferred responsibility for determining the admissibility of a class of evidence from the rulemaker, in this case the President, to a trial court acting as a "gatekeeper" under *Daubert* v. *Merrell Dow Pharmaceuticals, Inc.*, 509 U. S. 579, 597 (1993). This effectively raises *Daubert* to constitutional status. States will no longer be able to exclude categories of evidence with respect to criminal defendants. Instead, the trial court will engage in a general balancing of relevance, reliability, and prejudice. It is senseless to impose such *ad hoc* admissibility on the nation. The rules of evidence should be left to the rulemakers, whether federal or state, and whether executive, legislative, or judicial. The fact that a federal court may consider *Daubert* a better approach to deciding whether scientific evidence is admissible does not give that decision constitutional status. See *Mu'Min* v. *Virginia*, 500 U. S. 415, 430-431 (1991) (the fact that a rule is "better" does not incorporate it into the Fourteenth Amendment). This Court should give the rulemakers their deserved freedom. See *Payne* v. *Tennessee*, 501 U. S. 808, 824 (1991) ("Under our constitutional system, the primary responsibility for defining crimes against state law, fixing punishments for the commission of these crimes, and establishing procedures for criminal trials rests with the States").

The creeping constitutionalization of the law of evidence is not the purpose of the right to present evidence. This right "may, in appropriate cases, bow to accommodate other legitimate interests in the criminal trial process." *Chambers* v. *Mississippi*, 410 U. S. 284, 295 (1973); *Washington* v. *Texas*, 388 U. S. 14, 23, n. 21 (1967) (distinguishing privileges and mental competency requirements). While aware of this, see *Scheffer*, 44 M. J., at 445, the court below failed to properly apply these limits when interpreting *Rock*. Thus the decision below even contradicts *Rock*, which respected these limits. See 483 U. S., at 55, n. 11.

The decision below also contradicts this Court's most recent decision concerning limits on defense evidence. In *Montana* v. *Egelhoff*, 518 U. S. ___, 135 L. Ed. 2d 361, 116 S. Ct. 2013 (1996), this Court upheld against constitutional attack a statute excluding the use of voluntary intoxication for determining defendant's state of mind. The plurality explicitly rejected the right-to-present-evidence contention, finding "*Chambers* was an exercise in highly case-specific error connection." *Id.*, at 373, 116 S. Ct., at 2022. It found that *Chambers* did not create an unlimited right to present evidence, "but rather that erroneous evidentiary rulings can, in combination, rise to the level of a due process violation." *Id.*, at 374, 116 S. Ct., at 2022. Limits on defense evidence were constitutional so long as they were supported by a valid state policy. *Ibid.*

Justice Ginsberg's concurrence avoided the right-to-present-evidence issue by recognizing that the Montana statute changed the mens rea for crimes, thus rendering evidence of voluntary intoxication irrelevant. See *id.*, at 377, 116 S. Ct., at 2024-2025. The four dissenters, however, agreed with the plurality's interpretation of the right to present evidence; they only disagreed on the validity of the state's justification in the present case. See *id.*, at 380, 116 S. Ct., at 2027 (O'Connor, J., dissenting) ("limits on evidence may exceed bounds of due process where such limitations undermine a defendant's ability to present exculpatory evidence without serving a *valid* state justification" (emphasis added)).

The limits and dangers of polygraph evidence noted in parts I and II, *ante*, validate the exclusion of polygraphs. This rule does not merely operate to favor the prosecution, see *id.*, at 379-380, 116 S. Ct., at 2026; given the polygraph's usefulness in generating

confessions, it is likely that more inculpatory evidence is excluded than exculpatory polygraphs. Military Rule of Evidence 707 is meant to keep this scientifically invalid machine from undermining the military's justice system.

There is no absolute right to present exculpatory evidence. "The accused does not have an unfettered right to offer testimony that is incompetent, privileged, or otherwise inadmissible under standard rules of evidence." *Taylor* v. *Illinois*, 484 U. S. 400, 410 (1988). The right to present evidence should not be expanded into a constitutional evidence code. The decision below threatens to do this and therefore must be struck down.

CONCLUSION

The decision of the Court of Appeals for the Armed Forces should be reversed.

July, 1997

Respectfully submitted,

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